



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,219	10/20/2003	Craig E. Cox	21955	2336
20551	7590	01/19/2007	EXAMINER	
THORPE NORTH & WESTERN, LLP. 8180 SOUTH 700 EAST, SUITE 200 SANDY, UT 84070			DUONG, THANH P	
			ART UNIT	PAPER NUMBER
			1764	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/19/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/690,219	COX ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tom P. Duong	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 06 November 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-60 is/are pending in the application.  
 4a) Of the above claim(s) 29-46 and 55-60 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-28 and 47-54 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date: _____	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 6, 2006 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-3, 7-8, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Lange et al. , "The THERMIE energy farm project". Note, the system is being examined as an apparatus. Lange et al. discloses a circulating fluidized bed combustor (Fig. 2) comprising a wet scrubber (SC) connected to the CFB (GA), said wet scrubber (SC) being a flue gas desulphurization unit; particulate collection system (BH).

Art Unit: 1764

2. Claims 1-5, 7-8, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Greaves, "Flue gas desulphurization options for UK industrial plant". Note, the system is being examined as an apparatus. Greaves discloses a circulating fluidized bed combustor (Figs. 1 and 7) comprising a wet scrubber (page 275, 278-279) connected to the CFB , said wet scrubber being a flue gas desulphurization unit (page 279); particulate collection system (page 282).

3. Claims 1, 7-8, and 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Sellakumar (6,960,329). Note, the system is being examined as an apparatus. Sellakumar discloses a circulating fluidized bed combustor (12) comprising a wet scrubber (48) connected to the CFB, said wet scrubber (12) being a flue gas desulphurization unit (Col. 7, lines 45-55); particulate collection system (Col. 6, lines 18-20); and reducing emission of NOx; mercury removal device (via injection 36).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1764

4. Claims 4-6, 12-13, and 17-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lange et al. Regarding claims 4-6, Lange et al. discloses a wet scrubber but is silent with respect to the type of wet scrubber used. In view of Lange et al., it would have been an obvious design choice to one having ordinary skill in the art to select any commercially available wet scrubber(s) including the claimed wet scrubbers in order to effectively removing the SOx and other impurities from the flue gas stream since the use of known equivalent structures involves only ordinary skill in the art . See *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958). *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958). Furthermore, Applicants have not disclosed criticality and/or advantages of using a particular wet scrubber system and it appears in view of the prior art that the selection of any commercially available wet scrubbers is an obvious matter of design choice in view of unexpected results.

Regarding claims 12-13, Lange et al. discloses the features of the claimed invention and therefore, the apparatus of Lange is capable of removing the SOx emissions by 95-100% or at most thru routine optimization. Regarding claims 17-19, 23, 25, and 26, Lange et al. discloses the features of the claimed invention but does not expressly disclose a second wet scrubber to further treat the flue gas stream. It would have been obvious in view of Lange et al. to one having ordinary skill in the art to provide additional wet scrubber(s) downstream of the CFB to further enhance the removal of particulates and/or SOx. Note, the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See *In re Harza*. MPEP

Art Unit: 1764

2144.04. Regarding claims 20 and 21, Lange et al. discloses a wet scrubber but is silent with respect to the type of wet scrubber used. In view of Lange et al., it would have been an obvious design choice to one having ordinary skill in the art to select any commercially available wet scrubber(s) including the claimed wet scrubbers in order to effectively removing the SOx and other impurities from the flue gas stream since the use of known equivalent structures involves only ordinary skill in the art . See *In re Ruff*, 256 F.2d 590, 118 USPQ 340.(CCPA 1958). *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958). Furthermore, Applicants have not disclosed criticality and/or advantages of using a particular wet scrubber system and it appears in view of the prior art that the selection of any commercially available wet scrubbers is an obvious matter of design choice in view of unexpected results.

Regarding claim 22, Lange et al. discloses the features of the claimed invention and therefore, the apparatus of Lange is capable of removing the SOx emissions by 95-100% or at most thru routine optimization. Regarding claim 24, In view of Lange et al., it would have been an obvious design choice to one having ordinary skill in the art to select any commercially available coal fired reactor including pulverized coal reactor in order to combust the coal since the use of known equivalent structures involves only ordinary skill in the art . See *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958). *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958).

5. Claims 9-11, 16, 28, 47-52, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lange et al in view of Wietzke '237. Lange et al. does not disclose a dry scrubber system connected with the CFB. Wietzke '237 teaches a dry scrubber (220) to treat the flue gas stream and reduce NOx. Thus, it would have been obvious in view of Wietzke to one having ordinary skill in the art to modify the system of Lange with a dry scrubber as taught by Wietzke in order to reduce the emission. With respect to the types of dry scrubber(s), it would have been an obvious design choice to one having ordinary skill in the art to select any commercially available dry scrubber(s) including the claimed dry scrubbers in order to effectively removing the SOx and other impurities from the flue gas stream since the use of known equivalent structures involves only ordinary skill in the art . See *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958). *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958). Furthermore, Applicants have not disclosed criticality and/or advantages of using a particular dry scrubber system and it appears in view of the prior art that the selection of any commercially available dry scrubbers is an obvious matter of design choice in view of unexpected results. Wietzke et al. '237 is silent with respect to the second dry scrubber in connection with the first dry scrubber. However, it would have been obvious in view of Wietzke et al. to one having ordinary skill in the art to provide additional dry scrubber(s) downstream of the CFB to further enhance the removal of SOx. Note, the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See *In re Harza*. MPEP 2144.04. Regarding claim

Art Unit: 1764

50, the applied references disclose the features of the claimed invention and therefore, the apparatus of the applied references is capable of removing the SOx emissions by 95-100% or at most thru routine optimization.

6. Claims 15, 27, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applied references (Lange et al in view of Wietzke '2) and further in view of Sellakumar '329. The applied references fail to disclose a dry scrubber in connection with a CFB. Sellakumar teaches it is desirable to provide a dry absorbent injector to facilitate the conversion of mercury to HgCl<sub>2</sub> so that it can be removed by the bag filter 30. Thus, it would have been obvious in view of Sellakumar '329 to one having ordinary skill in the art to provide a dry scrubber as taught by Sellakumar in order to facilitate in removing the mercury. With respect to the types of dry scrubber(s), it would have been an obvious design choice to one having ordinary skill in the art to select any commercially available dry scrubber(s) including the claimed dry scrubbers in order to affectively removing the SOx and other impurities from the flue gas stream since the use of known equivalent structures involves only ordinary skill in the art . See *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958). *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958). Furthermore, Applicants have not disclosed criticality and/or advantages of using a particular dry scrubber system and it appears in view of the prior art that the selection of any commercially available dry scrubbers is an obvious matter of design choice in view of unexpected results.

7. Claims 6, 12-13, 17-19, 23, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greaves. Regarding claim 6, Greaves discloses a wet scrubber but is silent with respect to the type of wet scrubber used. In view of Greaves, it would have been an obvious design choice to one having ordinary skill in the art to select any commercially available wet scrubber(s) including the claimed wet scrubbers in order to effectively removing the SOx and other impurities from the flue gas stream. Furthermore, Applicants have not disclosed criticality and/or advantages of using a particular wet scrubber system and it appears in view of the prior art that the selection of any commercially available wet scrubbers is an obvious matter of design choice in view of unexpected results. Regarding claims 12-13, Greaves discloses the features of the claimed invention and therefore, the apparatus of Greaves is capable of removing the SOx emissions by 95-100% or at most thru routine optimization. Regarding claims 17-19, 23, 25, and 26, Greaves et al. discloses the features of the claimed invention but does not expressly disclose a second wet scrubber to further treat the flue gas stream. It would have been obvious in view of Lange et al. to one having ordinary skill in the art to provide additional wet scrubber(s) downstream of the CFB to further enhance the removal of particulates and/or SOx. Note, the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See *In re Harza*. MPEP 2144.04.

Art Unit: 1764

8. Claims 2-6, 12-13, and 17-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sellakumar '329. Note, the system is being examined as an apparatus. Regarding claims 17 and 23-28, Sellakumar discloses a circulating fluidized bed combustor [(12), Col. 7, lines 34-37] comprising a wet scrubber (48) connected to the CFB, said wet scrubber (12) being a flue gas desulphurization unit (Col. 7, lines 45-55); particulate collection system (Col. 6, lines 18-20); and reducing emission of NOx; mercury removal device (via injection 36). Sellakumar does not expressly disclose a second wet scrubber to further treat the flue gas stream. It would have been obvious in view of Sellakumar to one having ordinary skill in the art to provide additional wet scrubber(s) downstream of the CFB to further enhance the removal of particulates and/or SOx. Note, the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See *In re Harza*. MPEP 2144.04. Regarding claims 2-6 and 18-21, Sellakumar discloses a wet scrubber but is silent with respect to the type of wet scrubber used. In view of Sellakumar, it would have been an obvious design choice to one having ordinary skill in the art to select any commercially available wet scrubber(s) including the claimed wet scrubbers in order to effectively removing the SOx and other impurities from the flue gas stream. Furthermore, Applicants have not disclosed criticality and/or advantages of using a particular wet scrubber system and it appears in view of the prior art that the selection of any commercially available wet scrubbers is an obvious matter of design choice in view of unexpected results. Regarding claims 12-13, and 22, Sellakumar '329 discloses the apparatus with the features of the claimed invention and therefore, the apparatus of

Sellakumar '329 is capable of removing the SOx emissions by 95-100% or at most thru routine optimization.

9. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sellakumar '329 in view of Wietzke et al. '237. Sellakumar does not disclose a dry scrubber system connected with the CFB. Wietzke '237 teaches a dry scrubber (220) to treat the flue gas stream. Thus, it would have been obvious in view of Wietzke to one having ordinary skill in the art to modify the system of Sellakumar with a dry scrubber as taught by Wietzke in order to reduce the emission. With respect to the types of dry scrubber(s), it would have been an obvious design choice to one having ordinary skill in the art to select any commercially available dry scrubber(s) including the claimed dry scrubbers in order to affectively removing the SOx and other impurities from the flue gas stream since the use of known equivalent structures involves only ordinary skill in the art . See *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958). *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958). Furthermore, Applicants have not disclosed criticality and/or advantages of using a particular dry scrubber system and it appears in view of the prior art that the selection of any commercially available dry scrubbers is an obvious matter of design choice in view of unexpected results.

10. Claims 47-52 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wietzke et al. (6,395,237). Note, the system is being examined as an apparatus. Regarding claims 47 and 51-52, Wietzke et al. '237 discloses a system for treating a flue gas from a CFB (Abstract) comprising: a particulate collection apparatus (190); a first dry scrubber (220) and a second dry scrubber (220) to remove SOx (Col. 5, lines 35-54). Wietzke et al. '237 is silent with respect to the second dry scrubber in connection with the first dry scrubber. However, it would have been obvious in view of Wietzke et al. to one having ordinary skill in the art to provide additional dry scrubber(s) downstream of the CFB to further enhance the removal of SOx. Note, the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See *In re Harza*. MPEP 2144.04. Regarding claims 48 and 49, Wietzke et al. discloses a dry scrubber system but does not expressly disclose the type of dry scrubber for the first and second dry scrubber system. It would have been an obvious design choice to one having ordinary skill in the art to select any commercially available dry scrubber(s) including the claimed dry scrubber system in order to effectively removing SOx and other impurities from the flue gas stream since the use of known equivalent structures involves only ordinary skill in the art . See *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958). *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958). Furthermore, Applicants have not disclosed criticality and/or advantages of using a particular dry scrubber system and it appears in view of the prior art that the selection of any commercially available dry

scrubbers is an obvious matter of design choice in view of unexpected results. Regarding claim 50, Wietzke et al. '237 discloses the apparatus with the features of the claimed invention and therefore, the apparatus of Wietzke et al. is capable of removing the SOx emissions by 95-100% or at most thru routine optimization.

11. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wietzke et al. '237 in view of Sellakumar '329. Wietzke '237 does not expressly disclose a mercury removal device connected to the CFB. Sellakumar '329 teaches chloride-containing salt injected by means 36 (Col. 7, lines 1-9) to remove mercury (Col. 5, lines 23-30). Thus, it would have been obvious in view of Sellakumar '329 to one having ordinary skill in the art to modify the flue gas treatment of Wietzke to include a mercury removal device as taught by Sellakumar '329 in order to remove the mercury from the flue gas stream.

#### ***Response to Arguments***

Applicant's arguments filed 11/6/06 have been fully considered but they are not persuasive. (1) The 102(b) rejection as anticipated by Wietzke is withdrawn and therefore, the argument with respect to said rejection is moot.

(2) The declarations or affidavits under 37 C.F.R. 1.131 filed July 3, 2006 and filed November 6, 2006 have been carefully considered but they fails to overcome the Sellakumar reference.

Applicant attempts to establish prior invention by conception prior to March 12, 2002 (the effective date of the Sellakumar reference, US 6,960,329) coupled with diligence from prior to March 12, 2002 until the October 20, 2003 filing date of this application.

The declaration under 37 CFR §1.131 filed July 3, 2006 is insufficient to overcome the rejection of claims 1-28 over Sellakumar under 35 USC §§ 102(e) and 103(a) as set forth in the last Office action dated May 1, 2006 because it is not properly executed and fails to establish conception prior to the date of the reference and diligence for the critical period.

The declaration under 37 CFR §1.131 filed November 6, 2006 is insufficient to overcome the rejection of claims 1-28 over Sellakumar under 35 USC §§ 102(e) and 103(a) as set forth in the last Office action dated May 1, 2006 because it fails to establish conception prior to the date of the reference and diligence for the critical period.

The declaration submitted November 6, 2006 indicates that prior invention did not occur prior to March 12, 2002 the effective date of the Sellakumar reference.

Note that 2 of the 3 inventors indicate that their "inventive contributions" occurred **after March 12, 2002**. The applicant now attempts to name 3 inventors. There is no indication whether any of the claims are attributable to less than all the named inventors. Therefore, the invention cannot have occurred prior to the date when all 3 were involved.

Note that if less than all the inventors contributed to the **claimed invention** which is under rejection, Applicant can provide an affidavit by the inventors of that claim along with a showing that they are the inventors. As stated in MPEP 715.04 I:

An affidavit or declaration by less than all named inventors of an application is accepted where it is shown that less than all named inventors of an application invented the subject matter of the claim or claims under rejection. For example, one of two joint inventors is accepted **where it is shown** that one of the joint inventors is the sole inventor of the claim or claims under rejection. (Emphasis added)

Applicant is reminded that although joint inventors need not have contributed to each claim, for the purpose of establishing prior invention the analysis proceeds on a claim by claim basis.

**I. Formalities:**

a. The declaration of July 3, 2006, is ineffective because it was **not properly executed**. It was not signed by all inventors. That is, the declaration is only signed by Craig Cox, while there is another inventor on the application.

MPEP 715.04 states in relevant part:

Affidavits or declarations to overcome a rejection of a claim or claims must be made by the inventor or inventors of the subject matter of the rejected claim(s), a party qualified under 37 CFR 1.42, 1.43, or 1.47, or the assignee or other party in interest when it is not possible to produce the affidavit or declaration of the inventor(s). Thus, where all of the named inventors of a pending application are not inventors of every claim of the application, any affidavit under 37 CFR 1.131 could be signed by only the inventor(s) of the subject matter of the rejected claims.

Applicant has not met any of the criteria above. Therefore, the declaration is ineffective on its face.

**The remainder of the comments below is equally applicable to both affidavits.**

b. There is no indication (in the declaration) that the acts relied upon were carried out in the proper **venue**.

MPEP 715.07(c) states in relevant part:

The 37 CFR 1.131 affidavit or declaration must contain an allegation that the acts relied upon to establish the date prior to the reference or activity were carried out in this country or in a NAFTA country or WTO member country. See 35 U.S.C. 104.

Therefore, Applicant has not shown prior invention and the **rejection is maintained**.

However, in the interest of expediting prosecution, the Examiner will provide some guidance as to perceived deficiencies in the submitted declarations. These comments are not meant to be comprehensive. The burden is on applicant to prove prior invention in order to overcome a rejection based upon a 102(e) reference.

## **II. General considerations:**

MPEP §715.07 I. (General Considerations) states in relevant part.

Art Unit: 1764

The essential thing to be shown under 37 CFR 1.131 is priority of invention and this may be done by any satisfactory evidence of the fact. FACTS, not conclusions, must be alleged. Evidence in the form of exhibits may accompany the affidavit or declaration. Each exhibit relied upon should be specifically referred to in the affidavit or declaration, in terms of what it is relied upon to show.

A general allegation that the invention was completed prior to the date of the reference is not sufficient. *Ex parte Saunders*, 1883 C.D. 23, 23 O.G. 1224 (Comm'r Pat. 1883). Similarly, a declaration by the inventor to the effect that his or her invention was conceived or reduced to practice prior to the reference date, without a statement of facts demonstrating the correctness of this conclusion, is insufficient to satisfy 37 CFR 1.131.

### III. Conception

While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897).

The affidavit or declaration and exhibits must clearly explain which facts or data applicant is relying on to show completion of his or her invention prior to the particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice "amounts essentially to mere pleading, unsupported by proof or a showing of facts" and, thus, does not satisfy the requirements of 37 CFR 1.131(b). *In re Borkowski*, 505 F.2d 713, 184 USPQ 29 (CCPA 1974). Applicant must give a ***clear explanation*** of the exhibits pointing out exactly what facts are established and relied on by applicant. 505 F.2d at 718-19, 184 USPQ at 33. See also *In re Harry*, 333 F.2d 920, 142 USPQ 164 (CCPA 1964) (Affidavit "asserts that facts exist but does not tell what they are or when they occurred."). (See MPEP 715.07 I. ) [Emphasis added]

To establish conception, the declaration states in numbered paragraph 3 that Exhibit 1 "contains a redacted version of evidence of conception, which describes, in part, the invention, and which was prepared prior to March 12, 2002."

This statement does not even rise to the level of "a vague and general statement which describes in broad terms what the exhibits show". It is no more than a general

Art Unit: 1764

statement that the exhibit supports the conception without any explanation of what the exhibits show and what portions are relied upon to support the conception of the claimed invention.

This amounts to mere pleading. This is not a clear explanation. Thus applicant has not met his burden of clearly showing how the submitted evidence supports conception of the invention.

The examiner has reviewed the submitted evidence in its entirety and does not find that it would support conception even with a proper declaration. For example, it is not obvious to Examiner where the claimed (claim 1) "wet scrubber being a flue gas desulphurization unit" or where the ranges of claim 12 are supported by the exhibits. As such it appears that Applicant has not shown a conception of invention. This is by way of example and is not meant to be comprehensive and exhaustive. Applicant has the burden of establishing conception.

Applicant is reminded that the issue of priority of invention is addressed on a claim by claim basis.

#### **IV. Diligence**

Where conception prior to the reference date has not been clearly established diligence need not be considered [See MPEP 715.07(a).] However, in the interest of expediting prosecution the Examiner will provide further guidance regarding the deficiencies in the attempted showing of diligence.

Where conception occurs prior to the date of the reference, but reduction to practice is afterward, it is not enough merely to allege that applicant or patent owner had been diligent. *Ex parte Hunter*, 1889 C.D. 218, 49 O.G. 733 (Comm'r Pat. 1889). Rather, applicant must show evidence of facts establishing diligence. (MPEP 715.07(a))

The entire period during which diligence is required must be accounted for by either affirmative acts or acceptable excuses. An applicant must account for the entire period during which diligence is required. Merely stating that there were no weeks or months that the invention was not worked on is not enough. *Gould v. Schawlow*, 363 F.2d 908, 919, 150 USPQ 634, 643 (CCPA 1966). Diligence requires that applicant must be specific as to dates and facts. *Kendall v. Searles*, 173 F.2d 986, 993, 81 USPQ 363, 369 (CCPA 1949) [See MPEP 2138.06].

The critical period for which diligence must be shown is from just before March 12, 2002 (the effective date of Sellakumar) until October 20, 2003 the effective filing date of the instant application. It appears that the evidence submitted is insufficient to establish diligence for this period.

Art Unit: 1764

As proof of diligence, Applicant in paragraph 3 states: "Exhibit 2 contains a summary and identification of activities which occurred between conception and constructive reduction to practice...".

As stated above (with respect to conception) the mere allegation is not sufficient to establish diligence.

Furthermore, review of Exhibit 2 reveals major shortcomings. For example:

i. There are no original exhibits supporting any of the allegations. Exhibit 2 is merely a statement, unsupported by any original documentation.

37 CFR §1.131(b) states:

(b) The showing of facts shall be such, in character and weight, as to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application. ***Original exhibits of drawings or records, or photocopies thereof, must accompany and form part of the affidavit or declaration or their absence must be satisfactorily explained.*** [Emphasis added]

ii. There are not sufficient dates alleged anywhere in the exhibit or the declaration. As cited above, a showing of diligence requires specificity as to acts and dates.

The only dates alleged are in the this sentence of Exhibit 2: "Applicants disclosed the present invention to legal counsel in May 2003 and the present application was filed October 3, 2003."

a. "May 2003" is not specific enough.  
b. Even if it were specific enough, the first date alleged is more than a year after the beginning of the critical period (March 12, 2002). Therefore,

iii. the entire critical period is not accounted for.

iv. It is not clear whether all of the activities referred to can be used to support diligence to reduction to practice or to filing of the application.

v. It appears that applicant may want to rely on attorney diligence for some portion of the critical period. See MPEP 2138.06 for the appropriate standard.

The Examiner cannot draw the legal conclusion of prior invention unless presented with adequate factual evidence and explanation by applicant to support such a

determination. There must be sufficient detail provided to allow the Examiner to make a reasonable evaluation of the evidence.

---

For the issue of the names:

1) Rule 48 petition to add 3<sup>rd</sup> inventor is no good, because the new oath needs all 3 names. See MPEP 201.03 (page 200-6).

***Conclusion***

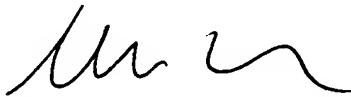
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P. Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tom Duong  
January 16, 2007

TP

  
Glenn Caldarola  
Supervisory Patent Examiner  
Technology Center 1700